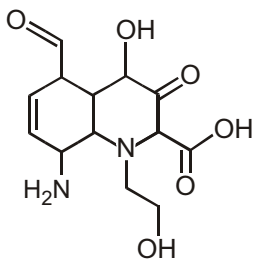
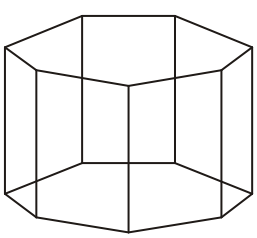
SINGLE CHOICE QUESTIONS

1. Find the sum of total number of different Functional groups and Double bond equivalent (DBE) value.



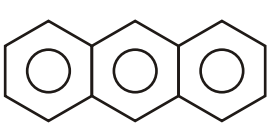
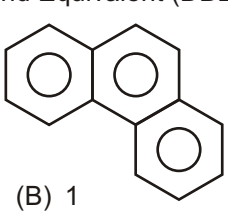
(A) 12 (B) 13 (C) 14 (D) 15

2. What is the Index of Hydrogen Deficiency (I.H.D) or Double Bond Equivalant (D.B.E.) for the following compound?



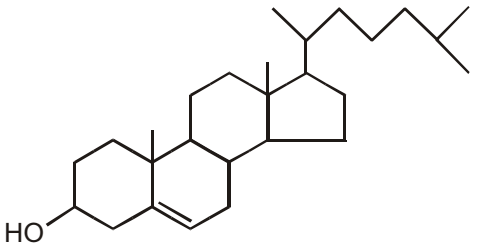
(A) 6 (B) 7 (C) 8 (D) 9

3. The difference in Double Bond Equivalent (DBE) value between

 and  is :

(A) 0 (B) 1 (C) 2 (D) 3

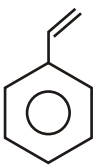
4. What is the correct molecular formula of following compound :



(Cholesterol)

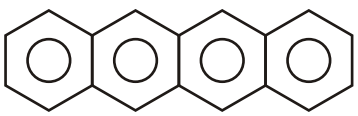
(A) $C_{27}H_{46}O$ (B) $C_{25}H_{42}O$ (C) $C_{28}H_{46}O$ (D) $C_{23}H_{40}O$

5. Which of following compound. has D.B.E is 5 :

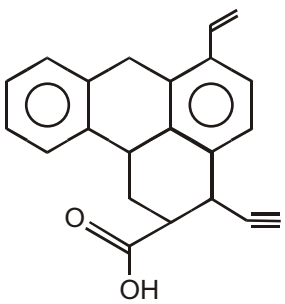
(A) (B)  (C)

(D) Both (B) & (C)

6. Number of p-bond present in given compound is



(A) 8 (B) 9 (C) 10 (D) 12

7. 

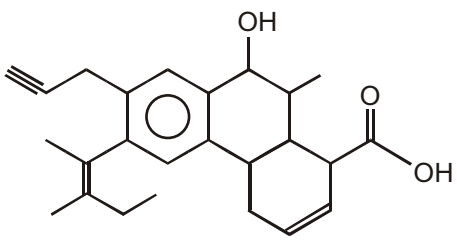
D.B. E of above compound is :

(A) 12 (B) 13 (C) 14 (D) 15

8. D.B.E of $(C_7H_5O_2)$ is :

(A) 3 (B) 5 (C) 5.5 (D) 4.5

9. How many degrees of unsaturation are there the following compound?



(A) 6 (B) 7 (C) 10 (D) 11

10. How many elements of unsaturation are implied by the molecular formula C_6H_{12}?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

11. How many elements of unsaturation are implied by the molecular formula C_5H_8O?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

12. How many elements of unsaturation are implied by the molecular formula $C_7H_{11}Cl$?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

13. How many elements of unsaturation are implied by the molecular formula $C_5H_5NO_2$?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

14. How many elements of unsaturation are implied by the molecular formula $C_8H_{11}N$?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

15. Consider molecules with the formula $C_{10}H_{16}$. Which of the following structural features are not possible within this set of molecules?

(A) 2 triple bonds (B) 1 ring and 1 triple bond
(C) 2 rings and 1 double bond (D) 2 double bonds and 1 ring
(E) 3 double bonds

16. A newly isolated natural product was found to have the molecular formula $C_{15}H_{28}O_2$. By hydrogenating a sample of the compound, it was determined to possess one -bond. How many rings are present in the compound?

(A) 0 (B) 1 (C) 2 (D) 3
(E) 4

17. Which of the following molecular formulas corresponds to a monocyclic saturated compound?

(A) C_6H_6 (B) C_3H_7Br (C) C_3H_7N (D) C_3H_8O
(E) C_3H_8O

KEY

1. (B)	**2.** (C)	**3.** (A)	**4.** (A)	**5.** (D)	**6.** (B)	**7.** (C)	**8.** (C)
9. (D)	**10.** (B)	**11.** (C)	**12.** (C)	**13.** (E)	**14.** (E)	**15.** (A)	**16.** (B)
17. (C)							